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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,931	06/01/2001	Christian Hentschel	PHNL 010327	3260

24737	7590	01/12/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER
CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/872,931	HENTSCHEL ET AL.
	Examiner	**Art Unit**	
	Dave Czekaj	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 November 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>20-24 and 27-40</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>20-24 and 27-40</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/27/05</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 20-24 and 27-40 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 20-24 and 27-40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chan (US 5,596,369) in view of Panusopone et al. (US 6,647,061) in

further view of Piccinelli et al. (6556718), (hereinafter referred to as "Piccinelli").

As for Claim's 20 and 32, Chan teaches at least one variable length decoder

(Chan: Reference Number 32 in Figure 5), at least one compensator coupled to the

variable length decoder (Chan: Reference Number 40 in Figure 5), a summing junction

coupled to the inverse discrete cosine transform and motion compensator (Chan:

Reference Number 44 in Figure 5) and a controller (Chan: Reference Number 36 in

Figure 5). Chan also teaches where at least one of the variable length decoder, inverse

quantizer, inverse discrete cosine transform and motion compensator is coupled to the

controller (Chan: Figure 5) and responsive to operate based upon a given complexity

characteristic (Column 5, line 64 to Column 6, line 6). Although Chan fails to teach at

least one inverse quantizer coupled to the variable length decoder, at least one inverse

discrete cosine transform couple to the inverse quantizer and coupling the variable

length decoder and inverse quantizer to the controller, Panusopone et al. does

(Panusopone: Figure 4). Chan further fails to teach at least one of the various

components operates in a plurality of modes. Piccinelli teaches that it is well known that

a motion compensator operates in a plurality of modes based on a complexity

characteristic (Piccinelli: column 5, lines 23-37, wherein the complexity characteristic is

based on the error, the plurality of modes are MC/no-MC). Therefore it would have

been obvious to one of ordinary skill to incorporate the plurality of modes and connect

the Inverse Quantizer and VLD to the controller as well as the Motion Compensator and

the IDCT to have more control and allow for more and efficient compression and better

image quality.

As for Claim's 21 and 33, Chan teaches where the controller selects one of the

modes further based upon an available amount of computing resources for operating at

least one of the variable length decoder, inverse quantizer, inverse discrete cosine

transform and motion compensator and one of the modes is substantially equal to the

available amount of resources (Chan: Column 8, line 49 to Column 9, line 55). This

shows that inputs and outputs are calculated and then the motion compensator is

calculated to use the exact amount of resources needed instead of wasting memory by

using the worst-case scenario.

As for Claim's 22-24 and 34-36, many of the limitations have been addressed in

the above rejections. Chan teaches where at least one IDCT is selectively operable in

response to the controller (Chan: Column 5, line 64 to Column 6, line 6), where the

selectively operated IDCT implements the selected one of the modes and where the complexity-distortion characteristic of the selected one of the modes is more efficient than those of the others of the plurality of modes (Chan: Column 6, lines 8-18). This shows that the less time used to process the information results in a more efficient mode. Although Chan fails to specifically teach a plurality of IDCTs for operating the different modes, Panusopone does show operating in the Intra and Inter modes with the use of one IDCT (Panusopone: Figures 4A and 4B). Since Panusopone shows the operation of the Intra and Inter modes with a single IDCT it would have been obvious to one of ordinary skill to use multiple IDCTs in order to operate in the I, P and B modes respectfully with their own individual IDCT. (Official Notice)

As for Claim's 27-29 and 37-39, many of the limitations have been addressed in the above rejections. Chan teaches further comprising at least one scaleable application that is responsive to the controller, where the scaleable application is operable in a plurality of modes, each of the modes having a different complexity characteristic and where the controller determines if available resources are not suitable for operation of the scaleable application and selects another of the modes for the scaleable application (Chan: Column 7, lines 11-31, Column 8, lines 25-30, wherein the I values have priority, or a weight/scale, over the M values). This shows that the M and I values are calculated for different input modes.

As for Claim's 30, 31 and 40, Chan teaches comprising a memory accessible to the controller that includes data indicative of complexity-distortion characteristics of

each of the modes for a plurality of amount of available system resources (Chan:
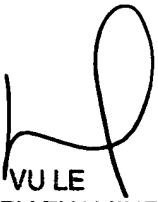
Column 5, lines 15-19; See also Figure 5).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dave Czekaj whose telephone number is (571) 272-

7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Groody can be reached on (571) 272-7950. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

DJC

VU LE
PRIMARY EXAMINER